

Neighborhood Traffic Calming Program Guide

City of Alexandria, Virginia

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www.AlexTrafficCalming.org

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*An electronic version of this Guide is available on-line at www.AlexTrafficCalming.org, or you may request a printed copy by contacting 703-519-3400, x217.

INTRODUCTION

The City of Alexandria's Neighborhood Traffic Calming Program (NTCP) incorporates education, enforcement and engineered street design into protecting the quality of life in City neighborhoods. The City has developed the NTCP to provide residents with the opportunity to raise neighborhood traffic concerns and to participate in the selection of strategies that promote safe and pleasant conditions for residents, pedestrians, bicyclists and motorists in City neighborhoods.

Traffic calming is defined by the Institute for Transportation Engineers as "the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users." With this Guide as a framework, staff will work with neighborhoods to develop a plan to calm traffic in order to meet the goals listed below.

GOALS

The goals of the NTCP are as follows:

1. Provide protection to residential neighborhoods from traffic operating at excessive speeds and excessive volumes of traffic.
2. Keep neighborhood street use, to the greatest extent possible, within the classification defined in the transportation chapter of the Master Plan (i.e. local streets, residential collectors, primary collectors).
3. Increase access, safety, comfort and convenience for pedestrians and bicyclists by changing the culture of neighborhood street use from "cars first" to "people first."
4. Base the expenditure of public resources on need.
5. Foster a collaborative working relationship between City staff and neighborhood residents in the development of traffic calming measures.

CRITERIA

For a neighborhood to qualify for NTCP assistance, at least one of the criteria thresholds below must be met for a local street, residential collector or primary collector, as defined in Appendix A - Street Classification Map. Traffic surveys conducted by the City will determine whether these thresholds are met. These criteria are based on those used in successful traffic calming programs in North America and Europe.

SPEEDING - The speeding criteria is met if 15% of the motorists on any street travel at 5 mph or more above the posted speed limit.

EXCESSIVE TRAFFIC VOLUME - The traffic volume criteria is met if the volume for a particular street classification exceeds the following:

<u>Street Classification</u>	<u>Vehicles Per Day</u>
Local Street	3,000
Residential Collector	7,000
Primary Collector	10,000

Note: See Appendix A to find the classification for any City street.

IDENTIFYING NEIGHBORHOOD TRAFFIC CONCERNS

Before requesting assistance from the City, the neighborhood should clearly define what the traffic problems are and achieve neighborhood consensus on that definition. The broad problem areas are speeding and traffic volume, but there may be additional issues that need addressing as well.

Defining the problem occurs on two levels. The first level is clearly understanding what the residents' concerns are; determining if there is, in fact, a basis for those concerns and then expressing those concerns. The second level of the problem definition is the accumulation of data to support the identified problem(s).

PROCESS STEPS

Due to the popularity of the NTCP and the fact that a limited amount of money is available on an annual basis, neighborhoods wanting to participate in this program must complete an application which will be evaluated by staff in the Department of Transportation and Environmental Services. Below is a description of the application process which represents a community-based, problem-solving approach.

1. TRAFFIC CALMING APPLICATION

Requests for traffic calming measures on neighborhood streets can come from the presidents of civic associations, on behalf of the association; or from individuals who do not live within the boundaries of an active civic association. If there is no active civic association, the application must include the signatures of at least five affected homeowners, not all from the same street. This

requirement is to ensure that the problem is perceived as neighborhood-wide, not solely an individual problem. If one is unsure about the presence of a civic association in his/her neighborhood, contact the City's Office of Citizen Assistance at 703-838-4800.

Traffic calming requests are made using the City of Alexandria NTCP Application (see Appendix C). Communities should only submit their most serious traffic concerns. There is no deadline for applications, but rather applications will be processed on a continuing basis. Communities who submitted an application for traffic calming in the past fiscal year should contact the Traffic Calming Coordinator at 703-519-3400 x217 or trafficalming@ci.alexandria.va.us to request their application be reconsidered for the present fiscal year.

This request will include:

- Street segment where the problem(s) exists (i.e. X Street between Y Place and Z Avenue)*;
- Time of day when the problem(s) occurs;
- Possible causes of the problem;
- Perceived dangers to pedestrians, bicyclists, residents and property as a result of the problem; and
- Names, addresses and phone numbers of 2 - 5 nearby residents who share the concerns, (a petition is not needed at this point).

*Some streets are not appropriate for traffic calming, including dead-ends and private streets.

Staff will acknowledge the completed application in writing to the civic association contact.

2. DATA COLLECTION & ANALYSIS

Staff will collect and analyze necessary traffic data to determine whether 1) the data supports the problem(s) identified in the application and 2) the street segment meets either of the criteria for traffic calming as explained on page 4. Data collection will be conducted on weekdays, September through May, when public school is in session.

Communities that applied for traffic calming last year and did not meet the criteria may reapply this year due to the revised criteria.

A) DATA DOES NOT SUPPORT THE APPLICATION

If the data collected indicate that the situation does not meet the thresholds for speeding and traffic volume as defined on page 4, staff will report back to the civic association, and any other individuals who have made their interest known to staff, that the problem did not warrant any specific action. The situation will be eligible for re-evaluation after a two-year waiting period.

B) DATA SUPPORTS THE APPLICATION

If the objective data confirm the existence of a problem, staff will calculate a street segment score using the Priority Worksheet (Appendix D). To determine this score, staff will:

- Identify affected streets;
- Identify users of affected streets;
- Find reported traffic crash data from the police;
- Identify traffic generators, such as schools, parks, shopping centers, etc.;
- Identify bike and transit routes; sidewalks and the presence of traffic calming measures;
- Analyze street use with respect to street classification; and
- Document any other relevant factors.

Staff will create a priority list of the applications based on these scores. The priority list will assist staff in objectively determining where the limited funds for this program will be allocated. On a six-month cycle, staff will present the recommended priority list to the Traffic & Parking Board (T&PB) for review. Based on findings of fact that would materially affect the implementation priorities, the T&PB may recommend adjustments to the priority list. The priority list will be made public on the NTCP Website, www.AlexTrafficCalming.org.

3. PROJECT INITIATION

Every two months, depending on staff time and funding, staff will contact the community with the top priority to begin developing a traffic calming plan with them. The selection will be made on the first work day of even numbered months. If a year passes and a street segment remains on the list without receiving assistance, two points will be added to its worksheet score to compensate for the likely increase in traffic volume.

4. FORMATION OF COMMUNITY WORKING GROUP & PLAN DESIGN

For each high priority project selected, staff will first meet with the Fire Department to determine any specific emergency requirements of the street of concern. Then staff will meet with the applicant community to discuss the steps to develop a traffic calming plan and to establish a Working Group to oversee the process. A Working Group usually consists of about ten residents representing the local civic association and the broader neighborhood where the traffic calming measures are proposed to be located. The community has a period of two months to form a Working Group. If no Working Group has formed at the conclusion of the two months, staff will consider whether to grant an extension or conclude the project.

Once formed, the Working Group will focus on:

- The scope and nature of the traffic problems as stated in the Application,
- The traffic calming measures that can most realistically address the traffic concerns, and

- Working with City staff to develop preliminary design options and cost estimates for review by the neighborhood at public meetings held by the association.

Once the preliminary designs are acceptable to the Working Group, community support must be gained via petitioning.

5. ASSESS COMMUNITY SUPPORT FOR TRAFFIC CALMING (PETITION)

The next step in the implementation process is to obtain the required level of community support to be eligible for final design and funding. To assess support, the community will be responsible for collecting signatures from the affected homes on the street segment(s) with the petition (see Appendix E). Only one resident of each affected home may sign the petition. Homeowners and renters may sign. The Working Group shall explain to the affected residents that by signing the petition they accept the possibility that traffic calming may be built in front of their home. To assist the community, staff will prepare a map and brochure explaining what the proposed measures will look like and where each traffic calming measure will be located. The Working Group should include a cover letter validating that the criteria has been met, when delivering the petitions to staff.

Condominium and apartment buildings incorporating 25 or more households will not be required to get signatures from all the residents, but rather the written support of the traffic calming plan by the condominium association or property management company, respectively. For this, the Working Group should fill-out and sign Appendix F. The building may either approve or disapprove of the traffic calming plan.

A) PLAN RECEIVES SUFFICIENT SUPPORT

If the traffic calming plan receives sufficient support (usually 65% of affected households signing) and a letter of support of the plan by the civic association, then it will be presented before the T&PB. See the Traffic Calming Toolbox Guidelines for specific support requirements.

B) PLAN DOES NOT RECEIVE SUFFICIENT SUPPORT

If the response is not sufficient, staff will recommend either that the problem be referred back to the Working Group or that the process end. If the project is referred back to the Working Group, staff may recommend alternative approaches more likely to meet with community acceptance. Projects failing to receive community support cannot be resubmitted for T&PB review for a period of two years.

6. TRAFFIC & PARKING BOARD REVIEW

When the Working Group has developed a plan meeting the minimum community level of support, staff and a Working Group representative will present it to the T&PB for discussion and their recommendations. All traffic calming projects will be presented to the T&PB for review prior to implementation. All T&PB meetings are open to the public.

7. PROJECT IMPLEMENTATION

Once a project has been approved for funding, staff performs the following actions:

- Develops detailed construction drawings based on the preliminary design agreed to by the neighborhood;
- Acquires any right-of-way and/or easements needed;
- Schedules construction either by City workers or private contractor;
- Notifies affected residents of construction schedule;
- Coordinates and oversees construction or notice to private contractor to proceed; and
- Monitors all work for compliance to design specifications.

8. EVALUATION

If problems arise from the implementation of a traffic calming plan, staff will examine the causes and potential fixes. Additionally, citizens who feel that the NTCP process needs refinement may bring their issues to staff for discussion and consideration.

TRAFFIC CALMING MEASURES

When selecting the appropriate traffic calming measure(s), several principles need to be taken into consideration. In general, the traffic calming measure(s) selected should have all or most of the following attributes:

- Is consistent with Virginia law and meets the standards set out in the Manual on Uniform Traffic Control Devices and the American Association of State Highway and Transportation Officials guidelines,
- Addresses the problem in the most efficient and cost effective way possible,
- Accommodates the geometrics of the street (e.g., a traffic circle can only be built in an intersection that is large enough for it),
- Is compatible with the needs of the Fire and Emergency Medical Services Department, and
- Addresses the needs of nearby schools.

Staff will provide its expertise in traffic calming to assist the Working Group in developing its plan.

LEARN MORE

To learn more about traffic calming and view images of a variety of measures, visit any of the following Websites:

- Alexandria's traffic calming Website
www.AlexTrafficCalming.org

- Arlington, VA, traffic calming Website
www.co.arlington.va.us/dpw/planning/ntc

- Portland, OR, traffic calming Website
www.trans.ci.portland.or.us/trafficcalming

- Pedestrian & Bicycle Information Center Image Library
www.pedbikeimages.org and click on "Traffic Calming and Management"

- TrafficCalming.org
www.trafficcalming.org

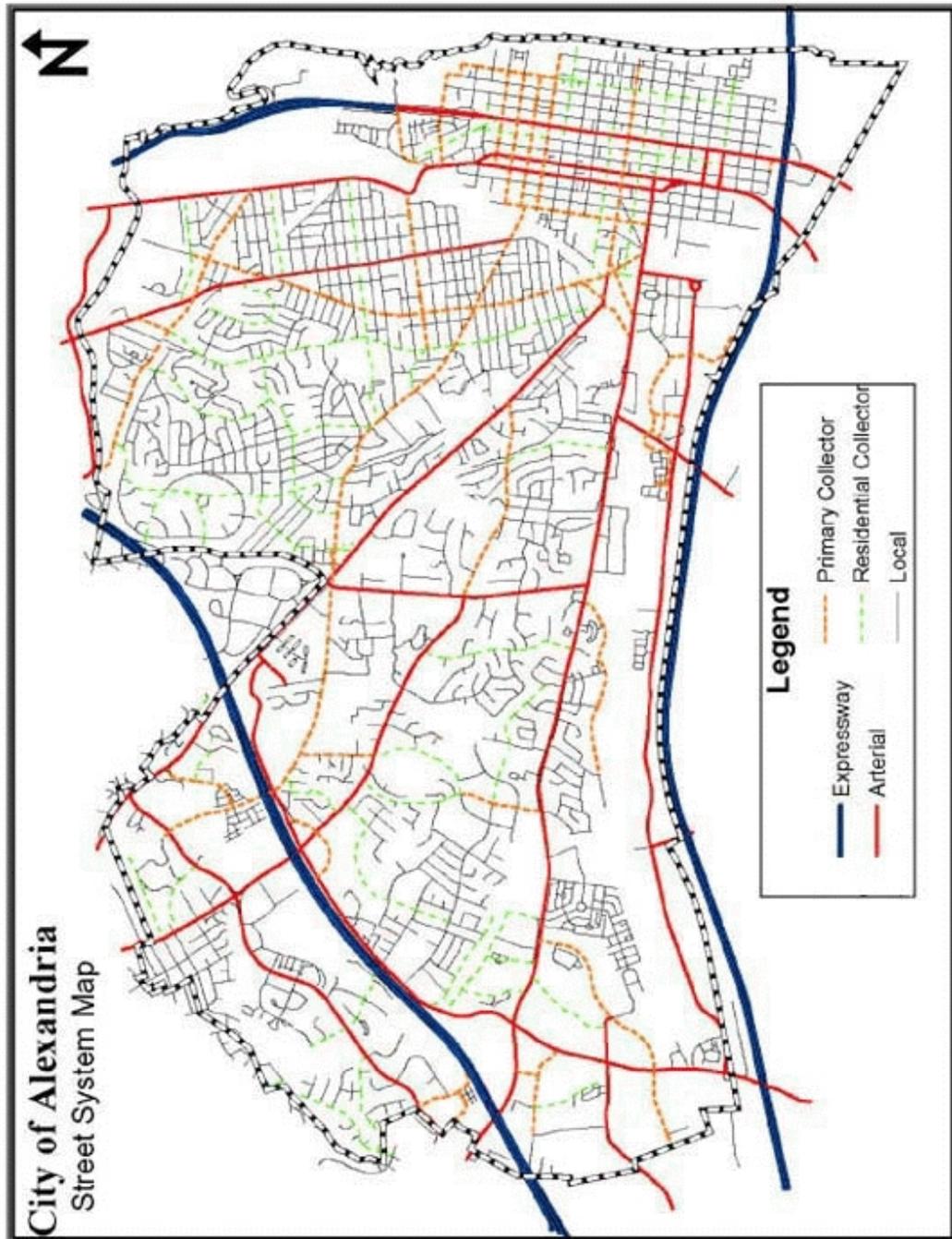
TRAFFIC CALMING TOOLBOX GUIDELINES

Issue	Measure	Description	Criteria	Minimum Community Support Needed	Expense
Bicyclist safety	bike lanes, signage and street symbols	improve safety of bicyclists and visually narrow streets to slow traffic	American Association of State Highway and Transportation Officials Bicycle Facility Guide	no minimum	low, \$100 - \$500
Cut-through traffic	turn restrictions	prohibit cut-through traffic at certain times of the day	high traffic volume	65% of households	low, \$250
	one-way streets	remove one direction of traffic on a two lane street	high traffic volume	65% of households	low to medium, \$250 - \$9,000
	heavy truck restrictions	remove heavy truck traffic by shifting it to a nearby route	5% of total traffic are heavy trucks and an alternative arterial is nearby	approval by civic association	low, \$250
Cut-through traffic <i>and</i> speeding	gateway	alert motorists of their entrance into a neighborhood	speeding criteria is met	65% of households	high, \$20,000-\$40,000
	street closure: full or half street	full closure of street to one or both lanes of traffic in either direction before an intersection	high traffic volume	65% of households	high, \$20,000-\$35,000
	diverters: full or half	raised barrier placed diagonally across an intersection that forces traffic to turn	high traffic volume	65% of households	high, \$20,000
Pedestrian safety	paver crosswalk	pressed asphalt crosswalk with brick pattern to highlight pedestrian crossing area	significant pedestrian traffic	65% of households	medium, \$5,000
	mid-block crosswalk	provide greater visibility to crossing pedestrians	significant pedestrian traffic	no minimum	low, \$500
	pedestrian refuge island	an island in the middle of the street to break the crossing into two sections	speeding criteria is met	65% of households	high, \$10,000-\$15,000

Issue	Measure	Description	Criteria	Minimum Community Support Needed	Expense
Pedestrian safety (cont.)	paddles	3' lime green bollards placed on centerlines	case by case basis	approval by civic association	low, \$250
	in-ground flashing beacons	highlights presence of pedestrians in crosswalk with flashing lights	case by case basis	65% of households	high, \$21,000
	pedestrian countdown signal	provides the number of seconds remaining to cross the street at an intersection	significant pedestrian traffic	approval by civic association	medium to high, \$13,000
	bulb-outs	shorten distance to cross the street and slow traffic	speeding criteria is met	65% of households	high, \$10,000/set
Speeding	street markings	visually narrow street to slow traffic	Manual on Uniform Traffic Control Devices	65% of households	low, \$300
	street narrowing	physically narrow street to slow traffic	speeding criteria is met	65% of households	high, \$15,000
	median	narrows streets to prevent turns at intersections or slow traffic	speeding criteria is met	65% of households	high, \$15,000
	chicane	winding street causes motorists to drive slower	case by case basis	65% of households	high, \$20,000-\$50,000
	speed cushion	effective at slowing vehicles 5 - 10mph when crossing the bump	speeding criteria is met	65% of households	medium, \$3,000
	variable speed display board	radar unit and board alert motorist to their travel speed	speeding criteria is met	no minimum	medium, \$6,000
	speed limit sign	reminds motorists of the speed limit	any citizen complaint	no minimum	low, \$250
	traffic circle	circular intersection appropriate for local streets	case by case basis	65% of households	high, \$6,000-\$10,000
	roundabout	circular intersection appropriate for streets with higher volumes of traffic	case by case basis	65% of households	high, \$15,000-\$25,000

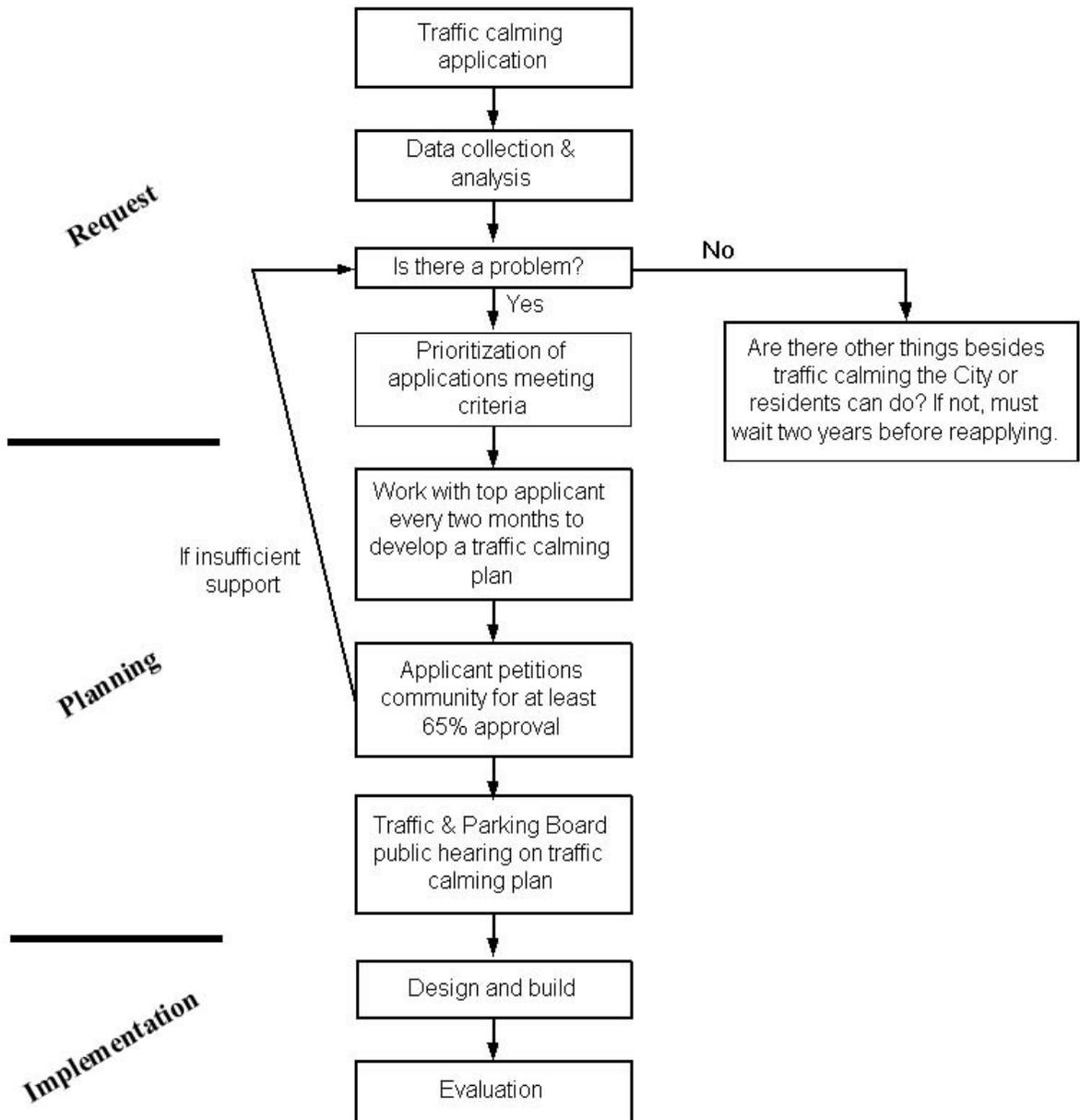
Speed cushions have replaced speed tables due to emergency response concerns.

APPENDIX A - STREET CLASSIFICATION MAP



* A color copy of this map can be found at www.AlexTrafficCalming.org or call 703-519-3400, x217 to request a copy be mailed to you.

APPENDIX B - PROCESS FLOWCHART



APPENDIX C - APPLICATION

**City of Alexandria
Neighborhood Traffic Calming Program Application**

Thank you for expressing interest in the City of Alexandria's Neighborhood Traffic Calming Program (NTCP). Fill out this form and mail to: NTCP, 301 King St., #1000, Alexandria, VA 22314, or email to: trafficalming@ci.alexandria.va.us. If you are unaware of the presence of a civic association in your neighborhood, contact the City's Office of Citizen Assistance at 703-838-4800. An electronic version of this application is available at www.AlexTrafficCalming.org.

Please print in ink or type.

Civic Association: _____

Civic Association President: _____

Civic Association President's Signature: _____

Civic Association President's Address: _____

Home phone: _____ Work phone: _____

E-mail: _____

Please describe your traffic concerns and include all of the following. Incomplete applications will be returned.

- Street segment where the problem(s) exists (i.e. X Street between Y Place and Z Avenue)*;
- Time of day when the problem(s) occurs;
- Possible causes of the problem;
- Perceived dangers to pedestrians, bicyclists, residents and property as a result of the problem;
and
- Names, addresses and phone numbers of 2 - 5 nearby residents who share the concerns, (a petition is not needed at this point).

* Note: Some streets are not appropriate for traffic calming, including dead-end and private streets.

APPENDIX D - PRIORITY WORKSHEET

NEIGHBORHOOD TRAFFIC CALMING PROGRAM PRIORITY WORKSHEET

Location: _____

Measure	Definition	Points
Speeding (0-100 pts.)	The percent of motorists who travel at over 5mph above the speed limit plus the percent who travel at over 10mph.	_____
Volume (0-100 pts.)	Average daily traffic volume, divided by 100.	_____
Crashes (3 pts. each)	Number of reported crashes on the street segment in the last three years.	_____
Fatalities (15 pts. each)	Number of fatalities on street segment in the last three years.	_____
Bike/Transit Route (5 pts. each)	Street designated as official bicycle route on the City Recreation Facilities and Trails Map (bike map), or used as a regular transit route by DASH or Metrobus.	_____
Pedestrian Generators (7 pts. each)	Public and private facilities which are likely to generate high volumes of pedestrian traffic.	_____
Sidewalks (0 or 5 pts.)	Existing sidewalks: If yes, 0 points; if no, 5 points.	_____
Traffic Calming (-5 or 0 pts.)	Existing traffic calming measures: If yes, -5 points; if no, 0 points.	_____
		Total points = <input style="width: 80px; height: 20px;" type="text"/>

Speed and Volume Data

Volume = _____

85% Speed = _____

% 5 mph above = _____

% 10 mph above = _____

APPENDIX F- MULTIFAMILY BUILDING PETITION VALIDATION

***Note: This form is to be used instead of the Petition for condominiums and apartment buildings with over 25 residences.**

Building Name: _____

Building Address: _____

Number of Residences: _____

Building Type (circle one): Condominium / Apartment Building

For Condominiums:

The president of the condominium board should sign below to show its Association's support for the traffic calming plan.

Approval Signature: _____

Name of Condominium Association president: _____

Street Address and Phone of
Condominium Association president: _____

For Apartment Buildings:

The property management company should sign below to show its support for the traffic calming plan.

Approval Signature: _____

Name of Property Manager: _____

Name of Property Management Company: _____

Street Address and Phone of
Property Management Company: _____